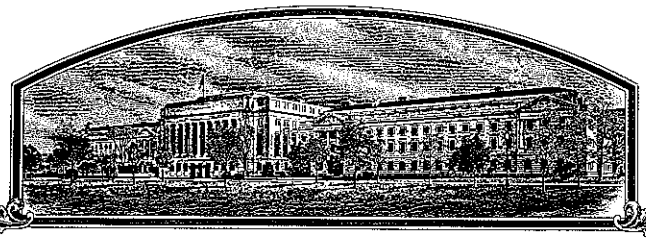
No. 9800001



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

The Curators of the University of Missouri

WHEREAS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF [illegible]. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Maverick'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this thirty-first day of March, in the year of our Lord two thousand.*

Attest:

Commissioner
Plant Variety Protection Office

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
The Curators of the University of Missouri

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
LN90-4455

3. VARIETY NAME
Maverick

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
University of Missouri
311 Jesse Hall
Columbia, MO 65211

6. TELEPHONE *(include area code)*
573-882-3211

6. FAX *(include area code)*
573-884=5446

FOR OFFICIAL USE ONLY

PVPO NUMBER
9800001

FILING DATE
01/OCT/97

7. GENUS AND SPECIES NAME
Glycine max (L.) Merr.

8. FAMILY NAME *(Botanical)*
Leguminosae

9. CROP KIND NAME *(Common name)*
Soybean

FEES RECEIVED
FILING AND EXAMINATION FEE:
$ 2450.00
DATE
01/OCT/97
CERTIFICATION FEE:
$ 300.00
DATE
Nov. 8, 1999

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*
Educational Organization

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Missouri

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
D. A. Sleper
Department of Agronomy
201 Waters Hall
University of Missouri
Columbia, MO 65211

14. TELEPHONE *(include area code)*
573-882-7320

15. FAX *(include area code)*
573-882=1467

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☒ YES *(If "yes," answer items 18 and 19 below)* ☐ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☒ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☒ FOUNDATION ☐ REGISTERED ☒ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES *(If "yes," give names of countries and dates)* ☒ NO

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
Roger L Mitchell			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Roger L. Mitchell			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Director of Ag. Experiment Stat.	9/15/97		

Exhibit A

Origin and Breeding History of the Variety

Maverick originated as a F_4-plant selection from the cross of LN86-4668 x 'Resnik' made at the Illinois Agricultural Experiment Station. LN86-4668 is a selection from the cross 'Fayette' x 'Hardin'. The original cross was made in the field in the summer of 1987, and the F_1 generation grown in the field in 1988. The F_2 and F_3 generations were advanced by single-seed-descent in Puerto Rico during the winter of 1988 andd 1989 and the F_4 generation was grown at Urbana in the summer of 1989. In the greenhouse at the University of Illinois during the winter of 1989 and 1990, progeny from single plants selected in the summer of 1989 were evaluated for resistance to races 3 and 14 of soybean cyst nematode (caused by *Heterodera glycines* Inchinohe) and resistance to races 1 and 3 of Phytophthora rot (caused by *Phytophthora sojae* M.J. Kaufmann & J.W. Gerdemann). During the winter of 1995 in the greenhouse at the University of Missouri, single plants of Maverick were evaluated for resistance to races 3 and 14 of the soybean cyst nematode. The F_5 generation was grown as plant rows in 1990 at the University of Illinois. Single-plant rows were selected, composited, and evaluated in replicated yield trials in Illinois in 1991. Maverick was identified and evaluated in replicated tests at multiple-locations in Missouri and Illinois, 1992 through 1995. Maverick was tested in the Preliminary SCN III Test in 1994 and Uniform SCN III Tests in 1995 and 1996 of the Northern Regional Soybean Cyst Nematode Test. Also, it was evaluated in Uniform III Tests in 1996 of the Uniform Soybean Tests-Northern Region Test.

Maverick was stable and uniform from the F_5 generation through our seed increase and testing program through F_{11} generation. The only variants observed on average were up to 1% variant in flower color and up to 1% variant in hila color.

Exhibit B

Statement of Distinctness

Maverick most closely resembles Iroquois in plant habit (indeterminate), maturity (Group III), flower color (purple), pubescence color (grey), hypocotyl color (light purple), pod color at maturity (brown), seed size (14 g/100 seeds), and resistance to Phytophthora rot (race 1). Maverick has dull yellow seeds, buff hila, and resistance to soybean cyst nematode (races 3 and 14) while Iroquois has yellow seeds, imperfect black hila, and is susceptible to the soybean cyst nematode.

EXHIBIT C
(Soybean)

AGRICULTURAL MARKETING SERVICE
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (Glycine max L.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
The Curators of the University of Missouri	LN90-4455	Maverick

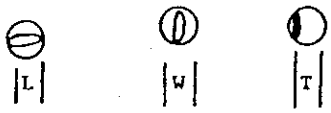
ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
University of Missouri
321 University Hall
Columbia, MO 65211

FOR OFFICIAL USE ONLY
PVPO NUMBER
9[illegible]0001

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:

[1]



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ **2. SEED COAT COLOR: (Mature Seed)**

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other *(Specify)* _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed) ✓

[1] 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

★ **4. SEED SIZE: (Mature Seed)**

[1][4] Grams per 100 seeds

★ **5. HILUM COLOR: (Mature Seed)** ✓

[1] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other *(Specify)* _____

★ **6. COTYLEDON COLOR: (Mature Seed)** ✓

[1] 1 = Yellow 2 = Green

★ **7. SEED PROTEIN PEROXIDASE ACTIVITY:** ✓

[ ] 1 = Low 2 = High

★ **8. SEED PROTEIN ELECTROPHORETIC BAND:** ✓

[ ] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

★ **9. HYPOCOTYL COLOR:**

[3] 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ **10. LEAFLET SHAPE:**

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other *(Specify)* _____

11. LEAFLET SIZE:

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17') 3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

[2] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton') 3 = Dark Green ('Gnome'; 'Tracy')

★ **13. FLOWER COLOR:**

[2] 1 = White 2 = Purple 3 = White with purple throat

★ **14. POD COLOR:**

[2] 1 = Tan 2 = Brown 3 = Black

★ **15. PLANT PUBESCENCE COLOR:**

[1] 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

[1] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton') 3 = Bushy ('Gnome'; 'Govan')

★ **17. PLANT HABIT:**

[3] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will') 3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

★ **18. MATURITY GROUP:**

[0][6] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V 9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

★ **19. DISEASE REACTION:** (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

★ [0] Bacterial Pustule *(Xanthomonas phaseoli* var. *sojensis)*

★ [0] Bacterial Blight *(Pseudomonas glycinea)*

★ [0] Wildfire *(Pseudomonas tabaci)* ?

FUNGAL DISEASES:

★ [0] Brown Spot *(Septoria glycines)*

Frogeye Leaf Spot *(Cercospora sojina)*

★ [0] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [ ] Other *(Specify)* _____

[0] Target Spot *(Corynespora cassiicola)*

[0] Downy Mildew *(Peronospora trifoliorum* var. *manshurica)*

[0] Powdery Mildew *(Microsphaera diffusa)*

★ [0] Brown Stem Rot *(Cephalosporium gregatum)*

[0] Stem Canker *(Diaporthe phaseolorum* var. *caulivora)*

9800001

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

★ [0] Pod and Stem Blight *(Diaporthe phaseolorum var; sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma var. sojae)* ✓

★ [2] Race 1 [0] Race 2 [2] Race 3 [2] Race 4 [2] Race 5 [0] Race 6 [0] Race 7

[2] Race 8 [0] Race 9 [2] Other *(Specify)* Race 13

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

★ [0] Cowpea Mosaic (Cowpea Chlorotic Virus) ✓

[0] Pod Mottle (Bean Pod Mottle Virus)

★ [0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)* ✓

★ [1] Race 1 [0] Race 2 [2] Race 3 [0] Race 4 [2] Other *(Specify)* Race 14

[0] Lance Nematode *(Hoplolaimus Colombus)*

★ [0] Southern Root Knot Nematode *(Meloidogyne incognita)*

★ [0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[0] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[0] OTHER DISEASE NOT ON FORM *(Specify)*: _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

★ [0] Iron Chlorosis on Calcareous Soil ✓

[0] Other *(Specify)* _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] Mexican Bean Beetle *(Epilachna varivestis)*

[0] Potato Leaf Hopper *(Empoasca fabae)*

[0] Other *(Specify)* _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Essex	Seed Coat Luster	Mustang
Leaf Shape	Mustang	Seed Size	Iroquois
Leaf Color	Mustang	Seed Shape	Resnik
Leaf Size	Mustang	Seedling Pigmentation	Magellan

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data 9800001

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Submitted Maverick	115	1.2	73.7	7.27	9.99	42	21	14	not recorded
Iroquois Name of Similar Variety	113	1.6	88.9	7.09	9.75	41	21	14	not recorded

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.

2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.

3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A_2 in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.

4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

Exhibit D

Additional Description of the Variety

At soybean cyst nematode infested locations, seed yield of Maverick was 25% higher than Iroquois and 3% higher than Jack. Compared with Iroquois at noninfested soybean cyst nematode sites, Maverick was similar in yield. Maverick is similar in seed quality score and seed oil concentration as Iroquois. This data was compiled from USDA Northern Regional Tests.

SCN UNIFORM TEST III 1996

	Strain			Previous testing
1	Jack	Fayette	x Hardin	11
2	Iroquois (III)	LN81-1029	x Asgrow A2943	1
3	IA3005	L82C-1212	x Kenwood	3
4	A94-773014	Pioneer P9303	x A87-395012	95 SCN PIII
5	A94-773038	Jack	x Pioneer P9303	95 SCN PIII
6	LN92-10484	Jack	x A86-303014	95 SCN PIII
7	LN92-10855	Jack	x Asgrow A3205	95 SCN PIII
8	Maverick	LN86-4668	x Resnik	1

IA3005 = A92-726034
Maverick = SS95-1000 reselection of SL90-4455

SCN UNIFORM TEST III 1996

	Strain	Tipp. Co. IN Ag. Alumni		Pulaski Co. IN Stotler	
		%	React	%	React
1	Jack	26.9	S	1.4	R
2	Iroquois (III)	100.0	S	100.0	S
3	IA3005	13.0	S	9.0	R
4	A94-773014	38.5	S	9.7	R
5	A94-773038	11.1	S	5.6	R
6	LN92-10484	56.7	S	4.2	R
7	LN92-10855	13.0	S	13.9	S
8	Maverick	40.4	S	26.4	S

Indiana greenhouse tests, refer to page vi of Methods.

SCN UNIFORM TEST III 1996

	Strain	Iron Chlorosis Humboldt IA	Illinois Urbana I race 3		SDS Ridgway IL		
			vigor	root	incidence	severity	index
		score	score	score	%	score	
1	Jack	4.0	3.5	1.0	3.2	1.5	0.48
2	Iroquois (III)	4.4	3.5	2.5	53.9	1.2	6.84
3	IA3005	3.2	1.5	0.5	0.0	1.0	0.00
4	A94-773014	4.2	1.0	0.5	40.3	1.3	4.61
5	A94-773038	3.9	2.5	0.0	23.7	1.1	2.56
6	LN92-10484	3.8	1.5	0.0	36.2	1.6	6.42
7	LN92-10855	4.6	1.5	0.0	8.8	1.0	0.69
8	Maverick	4.0	1.5	0.0	6.3	1.2	0.78

NI non-infested; I infested
Iowa Iron Chlorosis rating, refer to page vi Methods.
Illinios SCN vigor and root ratings, refer to page vi Methods.
Illinois SDS evaluation, refer to page vi Methods

Illinois Sudden Death Syndrome rating: Plots are scored at plant stage R6, Ridgway, IL, Southern Illinois University. All disease scores were interpolated to the R=6.2 reproductive stage. Some scores are <0 or >100 due to the Lattice adj.

R6DI = SDS Disease Incidence (% of plants with visible symptoms).
R6DS = SDS Disease Severity (1 = mild chlorosis, 5 = severe leaf scorch, 9 = premature plant death).
R6DX = SDS Disease Index (R6DI x R6DS/9)

Indiana's greenhouse test: Soil from each field location is brought to the laboratory and used to test each SCN soybean line for resistance to the SCN population found in that field. Seed of each soybean line are germinated in sand. When seedlings are several inches tall, sand is washed from the roots. Each seedling is placed in a 1-pint plastic cup partially filled with a soil:sand (1:2) mixture, 1 ml of inoculum is pipetted over the roots and additional soil/sand mixture is added to the pot. Five replicates of each entry are set up in this fashion. Inoculum is prepared by extracting cysts from the field soil, dissolving the cyst cuticle with sodium hypochlorite to release eggs and juveniles, and adjusting the inoculum concentration to 2000-3000 per ml. Plants are grown for a period of 6-8 weeks at a temperature around 75 F. When it is judged that development of first generation SCN females has taken place, tops are cut off the plants, and the roots and soil washed to recover all females. Total numbers recovered from each replicate of each entry are used to calculate an index of parasitism, with the mean number of cysts developing on the susceptible entries equal to 100%. If the mean number of cysts on a regional entry is less than 10% of the number on the susceptible varieties, the entry is rated as resistant. In addition to a S or R notation, the actual percentage is reported.

Maryland SCN rating: Number of cysts = full cysts/4 plants sampled on July 17, 1996.

Illinois SCN rating: SCN root score based on 0 = 0 cysts; 1 = 1-5 cysts; 2= 6-10 cysts; 3 = 11-30 cysts; and 4 > 30 cysts per plant (average of 5 plants per replication). SCN vigor score based on 1=no stunting or plant death to 5=all plants dead.

Iron chlorosis is rated from 1= no chlorosis, to 5= severe chlorosis.

Reaction of Maverick to Race 3 and Race 14 of the soybean cyst nematode in comparison to the susceptible variety Lee. The data reflect the number of females and cysts per plant for three replications. Data were collected at the University of Missouri-Columbia. The index of parasitism (IP%) was used as the criteria to distinguish resistance based on the standard soybean cyst nematode classification system (Golden et al., 1970; Schmitt and Shannon, 1992), and was calculated as follows:

$$IP(\%) = \frac{\text{number of females and cysts on a given individual}}{\text{average number of females and cysts on Lee}} \times 100$$

	Race 3					Race 14				
Variety	Number of cysts per plant			Mean	Index of	Number of cysts per plant			Mean	Index of
	Rep 1	Rep 2	Rep 3		Parasitism	Rep 1	Rep 2	Rep		Paratism
Maverick	5	0	4	3	4 %	24	30	13	22	20%
Lee	75	70	60	68		101	118	108	109	

References

Golden, A.M., J.M. Epps, R.D. Riggs, L.A. Duclos, J.A. Fox, and R.L. Bernard. 1970. Terminology and identity of infraspecific forms of the soybean cyst nematode (*Heterodera glycines*). Plant Dis. Rep. 54:544-546.

Schmitt, D.P. and G. Shannon. 1992. Differentiating soybean responses to *Heterodera glycines* Races. Crop Sci. 32:275-277.

REPRODUCE LOCALLY. *Include form number and date on all reproductions.*

FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)
The Curators of the University of Missouri

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
LN90-4455

3. VARIETY NAME
Maverick

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
University of Missouri
311 Jesse Hall
Columbia,MO 65211

5. TELEPHONE *(include area code)*
573-882-3211

6. FAX *(include area code)*
573-884=5446

7. PVPO NUMBER
9800001

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant *(individual or company)* a U.S. national or U.S. based company?
If no, give name of country _____ [X] YES [ ] NO

10. Is the applicant the original owner? [X] YES [ ] NO *If no, please answer the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?
[ ] YES [ ] NO *If no, give name of country* _____

b. If original rights to variety were owned by a company, is the original owner(s) a U.S. based company?
[ ] YES [ ] NO *If no, give name of country* _____

11. Additional explanation on ownership *(If needed, use reverse for extra space):*

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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